What is NAPCS? Overview of the North American Product Classification System
December 1, 2020

Coordinator: Welcome and thank you for standing by. At this time all participants are in a listen-only mode until the question-and-answer session of today's call. After the presentation we will conduct the question-and-answer session. At that point if you'd like to ask a question, please press star and then 1. This call is being recorded. If you have any objections, you may disconnect at this point. Now I will turn the meeting over to your host, Mr. Andrew Hait. You may begin.

Andrew Hait: Great. Thank you so much. Well thank you everyone for taking time out of your busy schedules today. My name again is Andy Hait. I'm an economist at the US Census Bureau at our headquarters office in Maryland. And I want to thank you all for taking time to attend this session today. I want to say good afternoon and good morning to any of our West Coast or Alaska or Hawaii attendees.

Today's session is going to be about the recently released North American Product Classification System or NAPCS-based data from the Economic Census.

We're going to be talking a little bit about the product line data that we've released in past Economic Censuses. We'll talk a little bit about the NAPCS System in general terms. And then most importantly we'll actually dive into our data tool, data.census.gov to actually show you all how to access that data.

So to kind of get it started, again this is sort of the overview of what we'll be covering. We are going to be providing some tips on how to access those data

most efficiently. And then, like the Operator said, we'll be taking some questions at the end.

Now, to get us started I want to provide just a little bit of background about the US Census Bureau. Of course, you all know by now that we have just recently completed collection data of the 2020 Decennial Census. And yes, this is an amazingly important thing that we do at the Census Bureau.

But it's far from being the only thing that we do. In fact, the Decennial Census or the Population Census is only 1 of more than 130 different monthly, quarterly, annual and periodic programs that we do each and every year. Those 130 programs include demographic surveys like the American Community Survey. I'm sure many of you are familiar with the ACS. It is a fantastic resource for demographic, socioeconomic and housing data.

For many of you who might be small business owners, you know that this is a great resource to learn something about potential customers of your business. It helps you understand the market that your business is located in. And demographers are not the only people who use this. Planners and emergency management officials and a variety of other people use the American Community Survey data.

In addition, though to the American Community Survey, we conduct 58 different business programs. Those 58 business surveys are grouped into three broad categories. We do monthly and quarterly programs. In fact, the Census Bureau conducts 17 of the leading Economic Indicator Surveys that you hear about on the evening news. Those include programs like the Monthly Retail Sales Report. They include information on manufacturer shipments, inventories and orders. And they even include data on imports and exports.

Annually we have a number of other programs, about 20 other annual programs. But at the base, sort of the benchmark of all of our monthly, quarterly and annual programs is the Economic Census.

The Economic Census is our most detailed and comprehensive program that we do every five years. It is the most detailed in a number of ways. Number one, it covers the most detailed industry breakout. The Economic Census covers nearly every two- through six-digit NAICS Code that is covered by the North American Industry Classification System. There are a couple of exclusions. We do not cover agriculture, which is NAICS 11. That is because US Department of Agriculture does. They conduct the Census of Agriculture and they have a number of ongoing programs as well that provide detailed industry on farming and other NAICS 11 activities.

There are also a few other exclusions. And as you can see on the slide I have provided a link to a list of those exclusions.

Just to let you all know, not only is this session being recorded today but all of the materials you're going to see today are going to be posted up to the same web site as where you went to learn about this survey - learn about this webinar.

The Economic Census is also our most detailed program in terms of geography. This program provides data at the national and state level of course. But we also have information for most sectors of the US economy at the metropolitan area, county and even place levels. Place, if you didn't recognize that term, is the word that we use to talk about cities, towns, villages and boroughs.

And in the Economic Census we recognize places of 2500 population or 2500 jobs or more. So we have this really detailed geographic data.

The Economic Census is also our most detailed program in terms of the other dimensions that we publish. Next week, on December 8th, I will be conducting another webinar on just what is a small business. We hear the term small business all the time. Certainly, during the COVID-19 pandemic we've heard about how small businesses are some of the businesses who have been most impacted by the pandemic.

But just what is a small business?

The Census Bureau publishes a wide variety of data broken up by business size. And this is included in the Economic Census. The Economic Census even includes data on franchise status.

So, for example if you wanted to know something about the restaurant industry and you wanted to be able to separate out those franchise restaurants from non-franchise restaurants that data are available in the Economic Census.

It's the most detailed program in terms of the other data variables that are shown. In fact, in the Economic Census we publish over 200 unique data variables. They include core statistics like the number of businesses or what we call an establishment; includes data on employment, payroll and some measure of output whether that be sales, shipments, receipts or revenue.

But we also publish other statistics, other variables that are unique to individual sectors or industries. Those would include variables like inventories and capital expenditures and assets and depreciation, purchase services, etcetera. It's again our most detailed program.

What we are going to be talking about today is the bullet that's highlighted here on this slide in red. And that is the product line data. One of the things that truly distinguishes the Economic Census from our other economic programs that we conduct at the Census Bureau is the Economic Census includes statistics on the products and services provided by businesses.

Many of our monthly, quarterly and annual programs publish information on total sales, total revenue, or total shipments of a business. But what the Economic Census then does is it takes those totals, those total sales for example of a grocery store, and it breaks it out into the detailed products and services that are provided by grocery stores.

So if you wanted to know something about the canned goods that are sold by grocery stores or the baked goods or the produce or the other types of products that are sold by grocery stores, those detailed breakouts of grocery store sales are what we call product lines.

And today's webinar is going to primarily focus on that type of information.

Here again, sorry about that. Where did my presentation go? Well, it looks like I lost my PowerPoint. Sorry about that. I apologize for the delay here, looks like my computer is doing something here right in the middle of my presentation, updating Microsoft Office. I apologize so much for this interruption.

Gregory Pewett: Well Andy while that's updating, I don't know if you want to take a question or we could wait till the end. But I could read one off if you like?

Andrew Hait: Sure. That'd be great. Thank you, Greg.

Gregory Pewett: Will the impacts of COVID on businesses be included in the next Economic Census data that is released?

Andrew Hait: Yes, so great question. So, the 2017 Economic Census is our most recent Economic Census Program that we're doing right now. We will be releasing data from the 2017 Economic Census through the beginning of next year. And those data will actually reflect the Calendar Year 2017 data.

The next Economic Census is actually the 2022 Economic Census. And those data will not be published for quite some time. However those monthly, quarterly and annual programs that we talked about are all programs that would actually show the more timely impact of the COVID-19 pandemic on our economy. You wouldn't see in those very timely programs data on specific product lines but you would actually. But that's detailed data - the more summary level data is available.

So sorry about that, like I said, we got stuck there. Great. Okay.

So let's - okay, so I do see a question that just came in from one of our attendees asking about why it takes so long.

The Economic Census being the most detailed program that we conduct is - takes the longest time of any of our programs for a number of reasons.

First of all, collecting data from every single employer, establishment in United States takes time. For the 2017 Economic Census that was approximately 4 million businesses across all sectors of the US economy.

We also got a late start on this Census because of some budgetary challenges, and right in the middle of collection of the 2017 Economic Census data we had the government shutdown.

So we began releasing as you'll see in just a moment data from the Economic Census in September of last year. That was about nine months behind where we would have been in the 2012 Economic Census. So it does take a long time to collect that data.

We also, being the Economic Census, we also spent a lot of time ensuring that the businesses responded and making sure that their responses are accurate. As I mentioned, those monthly, quarterly and annual programs are often baselined or benchmarked back to the Economic Census. So if we don't get a comprehensive count of businesses in the US every five years, those sample-based programs that would then be based on top of the Economic Census would take a very long - would - could potentially not have as accurate data.

So it's really important that we do get a good count of all those businesses over time.

Okay, let me kind of go on with the presentation here.

So as I just said, we started releasing data from the Economic Census in September of last year. The first report that we released was something called the First Look Report. That data included national level statistics by two through six-digit industries. And it gave us a brief glimpse into what our economy was like in the 2017 calendar year.

Starting in January of this year we started releasing something called the Geographic Area Statistics. And these are the data that most of you are

probably most familiar with. These are the data products that have that local area information, the data at the state, metro, county and even place levels.

Of course to protect the privacy of individual businesses we do periodically have to suppress data for very small levels of geographies. But that is one of the hallmarks of the Economic Census that we do at least have that detailed information or we try to publish it.

The section of the schedule that I have circled here is what we'll talk about today and that is those product statistics. Those data were just released about a week or so ago. And today we're going to be talking about what you'll find when you actually go in and access those data.

Next week, we're going to be releasing the Establishment and Firm Size Reports. That's where those business size breakouts are shown.

And then finally into the rest of next year we'll complete the Miscellaneous Statistics Reports.

Now let's talk about these product data, these product statistics that we published in the past.

Number one: in prior Economic Censuses the data, the product statistics data was published in separate data sets, separate tables for each and every NAICS sector. So for example there was a product statistics data table specifically for the retail trade sector. There was a separate product statistics table for the manufacturing sector and a separate file for retail trade and a separate table for the healthcare sector. What that did was it made it challenging for users who were interested in looking at product statistics across NAICS sectors because

they would have to go to multiple tables to access those product data for each of those sectors.

Second, the structure and content of each of those data sets was slightly different. For the manufacturing and mining sectors the structure of the product codes that were shown in those reports were shown at the six, seven, eight and ten-digit product code levels. As the number of digits increased so did the amount of detail. And you'll see an example of that in just a moment.

For the construction sector the product statistics were published in two forms or two formats, kinds of business and types of construction.

So if you wanted to know something about housing, single family home construction businesses that also did electrical work as opposed to just doing their normal building and framing kind of work, those types of statistics were shown in the kind of business and types of construction breakouts which looked very different than those manufacturing and mining tables.

Finally, the retail, wholesale and services sectors published a third flavor, if you will, of product statistics. They published these five digit codes that were broken out into broad line codes and detailed line codes. And you'll see an example of that in a minute.

So again, for a user who is trying to combine data across multiple sectors having them in separate tables was challenging. But having them in separate tables that was - where the structure was different from table to table was especially challenging.

Finally, from a geography perspective the geographic NAICS and even product levels that were shown varied widely from sector to sector. Some

sectors only showed their product data at the national level. Others showed them down to states. Some showed them only at certain selected NAICS levels and some showed them at the more detailed NAICS levels.

The other challenge with the product statistics data was there was limited or no sharing of product lines across sectors.

Now we often probably think of businesses where that business does a certain type of activity as their primary activity but they also do other things.

For example, my wife works at a large garden center located here in Maryland. They are primarily a garden product, a plant retail business. Folks come in to buy shrubs and perennials and a variety of other products that they would then plant themselves at their house.

But that business that is primarily classified as a retail business also has a fairly large wholesale operation. They do installation of the plants. They have a landscape services business which is a services sector business. And they even have food that they sell in the place. They have a little café set up in the business.

So that business that is primarily an agricultural products wholesaler, a garden center, also has product lines that are in a variety of other sectors. In past Economic Censuses there was very little data available that would highlight how diversified some businesses are.

And where that now has been fixed is in the NAPCS System. NAPCS as you're going to see in just a minute has data released in one large comprehensive data set that includes the data for all sectors together. The structure of that one data set means that the data that's published for

manufacturing looks exactly the same as the data that's published for retail. And in having one consistent consolidated classification system we now have the ability to be able to share product line, NAPCS-based products across different sectors. And you'll see a real life example of that in just a moment.

Now to give us a use case to kind of walk through, I was thinking about what industry we might choose that would resonate with a lot of people. And for some reason my brain went to shoes, to footwear.

So today we're going to talk a little bit about the footwear data that we've released in the past and then we'll actually see how you can see that footwear data under the new NAPCS System.

So for example, this slide provides some information on what the manufacturing sector data looked like for footwear in 2012. This table you can see shows data at the six, seven, eight and ten-digit product code levels. You can see footwear manufacturing there was about $1.9 billion in footwear manufactured in United States in 2012. And then you can see out of that $1.9 billion about $495.8 million was rubber and plastics footwear. And you can see the other breakouts.

I then took the data out of this table and put it into a simple pie chart. And as you can see about a quarter of the sales of footwear manufacturers - of the shipments of footwear manufacturers were in rubber and plastics footwear. This is where athletic shoes are classified. A little bit less than a half of them was in men's footwear and then a little more than a quarter was in women's footwear. I was quite intrigued to see that we actually manufacture more men's footwear in the United States than we do women's footwear. And you actually see how different that looks when you get to the wholesale and retail data on footwear.

But again, just kind of an example of the types of data we published in the past.

On the wholesale side, you can see this is looking at data for footwear merchant wholesalers, NAICS Code 424340. And as you can see, of the 31or so billion dollars in total sales about $28.7 billion of footwear merchant wholesalers was footwear. And you can then see within that broad line 14000 for footwear. Then you had detail line for shoe accessories, infant footwear, other or athletic footwear, men's and boy's and women's and girls. And you can see the breakout.

And as you can tell the women's, misses and girls footwear excluding athletic footwear was the largest piece, about $18 billion of the $27 billion was for footwear merchant wholesalers was in womens', misses' and girls' footwear. So this is the kind of breakout that we published for the wholesale side.

And again just kind of looking at that data some more we can clearly see that of the sales of footwear merchant wholesalers by far the largest share of their sales was in footwear.

But as you can see footwear merchant wholesalers actually sell other types of products, women's, misses and girl's clothing, men's and boy's clothing, etcetera.

Breaking out that footwear total, that broad line total in the first chart, we can then see within that footwear total the vast majority of it is women's, misses and girl's footwear, men's and boy's was ranked second, the athletic footwear was ranked third and then infant and shoe accessories was ranked fourth and fifth for those footwear detail lines.

And then finally because the table allows users to look at the different types of industries within wholesale trade that sell footwear, that wholesalers sell footwear, you can see the vast majority of footwear is actually sold or wholesaling was sold by footwear merchant wholesalers but wholesale trade agents and brokers also sell footwear as do men's and boy's clothing and furnishing merchant wholesalers, etcetera.

So again two ways of looking at the data, the products of an industry or looking at a product and all the industries that sell that product.

Looking at the retail side, we can see again of the $30.8 billion in total sales of shoe stores about $27.5 billion of that was for footwear and you could then see the breakout for men's and boy's or excuse me, men's and women's outdoor hiking and sports boots, footwear accessories, children's footwear, etcetera.

So this is the kind of breakout that we had published in the 2012 Economic Census. And again a couple of charts that show that within shoe stores the vast majority of the products sold by shoe stores are footwear.

But they also sell menswear, women's, juniors and misses wear, other merchandise and even sporting goods and recreational equipment. Those were the top five broad lines within that particular type of business, shoe stores.

Looking at that footwear total breaking it out into further detail, we can see that the largest share of that would be the women's footwear with men's athletic footwear being ranked number two and men's regular footwear being ranked number three in terms of the detail line.

Now one of our attendees just asked a question about, how could a businessperson use this type of product information to help in their decision making?

A lot of small business owners and just business owners in general terms use these product statistics to compare the products that they sell in their business or that they provide in their business to the products that other businesses like them provide.

So for example, let's say I was - I owned a shoe store. And in the past I had only sold women's shoes. And I was debating do I want to start selling men's shoes in my shoe store. It might be good to see how much of the sales of other shoe stores like me come from menswear or men's footwear because I might say okay; it is still a pretty significant portion. Maybe I ought to sell men's footwear. Similarly I could say well I'm only going to sell men's and women's. I'm not going to sell children's. Is it really worth it for me to set aside shelf space to sell and to be able to keep an inventory of children's footwear? And you could look at the data to see, you know, is this kind of worth it.

And then finally the last industry I want to talk about related to footwear is shoe repair. Now when we're thinking about, you know, shoe manufacturing and shoe wholesaling and shoe retailing, well sort of the last step in that chain is shoe repair, businesses that actually provide maintenance and repair services on footwear.

And we can see that of the $196 million in sales of that particular industry about $171 million of that is in maintenance and repair footwear. And again kind of comparing that in a couple of charts here, as you can see the vast

majority of the receipts of footwear and leather good repair businesses comes from the maintenance and repair of footwear.

But there are other things that they do as well. I was somewhat intrigued to see that the second ranked product that is provided or service provided by footwear and leather good repair businesses is maintenance and repair of garments or clothing.

And then kind of looking at the other industries, the vast majority of footwear maintenance and repair is done by footwear and leather good repair businesses. But there also are dry cleaning businesses that have footwear maintenance and repair services.

So as you can see the detailed breakouts that we've had for products in the past including the 2012 Economic Census vary widely from sector to sector.

So in our use case if we wanted to learn everything there was to know about this footwear industry we would've had to go to these four completely different data sets, download information for each of them, and combine it. And we might've ended up with something that is not really completely reflective of the total activity that's going on because manufacturers could've had retail sales or retail businesses could've had wholesale sales and those kind of sharing of product lines across sectors with something that was challenging, if not possible at all, to do under the old product system.

So that brings us to NAPCS, the North American Product Classification System which is the system that we are now using to classify all of these detailed product data.

NAPCS is being implemented in a phased-in approach. And you can see we started that phase-in operation back in 2002 for the 2002 Economic Census. And the phasing in has really come to its fruition for the 2017 Economic Census. And then moving forward for the 2018 through 2021 Annual Survey of Manufacturers we are now going to be using these NAPCS-based Product Codes moving completely forward.

Within the NAPCS Classification System there are a number of sections. These next two slides provide information about the section number, the title and the number of products that are shown for each of these different sections of the NAPCS Classification - of the, excuse me, NAPCS Classification System. You can see the different breakouts here. This is the second part of those slides - of those codes.

Now when we think about how we have implemented NAPCS in the 2017 Economic Census, all of these NAPCS-based codes are ten digits long. And as you can see in the table at the bottom of the slide they identify whether that is a broad line or detail line based upon the last digit of the ten digit code.

For product codes, collection codes that end in a zero are broad lines. And these are the higher level products that are collected across all sectors of the US economy.

So for example in my example I have here there's a broad line for room or unit accommodations for travelers. So that would be the product line that hotels would primarily report under for the revenue, for the sales, their receipts that they have for renting out rooms or selling rooms to travelers.

However, those businesses would also then have the ability to report the detail lines. So within that broad line, 7008325000 there's then 5003, 5006 and

5009 that break out room or unit accommodations for travelers into those rooms that have maid service, that don't have maid service, or that are shared room accommodations. So those are the three detail lines.

Broad lines again are being collected across all sectors. So if you have a hotel that generates revenue from the rental of rooms for travelers they will report this.

But if you had -- I don't know, make up something silly -- a manufacturing business that for some reason had rooms for rent at their manufacturing facility, for those who ever wanted to spend the night being at an automobile assembling plant, you could do that. That detailed breakout would be - would actually be shown on the broad line. And that broad line would be eligible businesses across all sectors of the economy would have the ability to report that broad line.

The detail lines are primarily intended for industry specific collection. So that manufacturing business might not have the ability to report the detail lines for hotel rooms that had maid service or without maid service. But they would have the ability to report a broad line.

All told there's about 3200 broad lines and about 4700 detail lines. So as you can tell by looking at that - at those numbers there, there are some broad lines that don't have any detail lines within them and then there are some like this one I have here where you have a broad line with three detail lines.

Okay now I did just see a note a few minutes ago about comparability. One of the key aspects when I talk to the users about using our data is how comparable are the numbers that you published in the past to the numbers that you're now publishing now.

Roughly 80% of the 2017 Economic Census collection products map directly to a single 2012-based legacy product. Another way of looking at that is about 85% of the detail lines and about 70% of the broad lines are one-to-one matches.

So that means for example, if you are looking at data for yogurt except frozen, the NAPCS Collection Code 20085000 maps exactly one-to-one to the Legacy Product Code 311511A1. That means that if I wanted to compare yogurt except frozen between 2012 and 2017 to see how that number had changed in that five year period I could actually do that.

The last bullet I have on the slide here is a really important one because it gives you information about where you can see that mapping. What are those 85% of the detail lines that are one-to-one and what are the 15% of the detail lines that don't match exactly one-to-one that are - where the content of that product code in 2012 and 2017 are different. So I've provided that here as well.

Now there's a couple things I want to mention. Here on this last bullet it mentions; it alludes to holes in the mapping. Some of you who have been familiar with our 2012 product data know that we historically published something called an NSK, a not specified by kind.

For businesses that we know are making a particular product but we don't know specifically what they are making we have a catchall category called an NSK, a not specified by kind where we could say this is the residual of that that is - that was not reported to us but we know it's in this broad industry. There is no mapping. Those holes don't include the mapping for those NSK Codes.

And similarly there's - in many industries there has been a sort of catchall, a residual product. Case where you have maybe 30 different product lines and then an "All other merchandise" kind of category. Again once again those residual products that are particular or unique to particular industries are not actually included in this mapping.

Finally, I want to quickly mention that there is no direct comparability for the construction sector products because as I mentioned before the construction products that we had published in the past, those KOB and TOC Codes, the Kind of Business and Type of Construction Codes are quite different than what the NAPCS-based products for the 2017 Economic Census.

Now when we talk about the - how the NAPCS-based data are being presented, they're being presented in two main ways. The first way is looking at the products of an industry. You choose an industry code and you get to see what are the NAPCS-based products both broad and detail line for that specific industry.

But there's also a table that's flipped the other way around, industry by product where you get to look at a NAPCS-based product and look at the industry that make or sell or provide that particular product.

These two views of the product line data, of these NAPCS-based data are very important. From the business owner perspective, the products by industry are very important because it allows them to compare the products of their business to the products of other businesses like them.

Industry by product data though is really important if you wanted to find out something about what is - what are the industries or industry or industries that sell a particular product.

And I'm going to give you a real life example. A number of years ago the State of Maryland was considering raising the cigarette taxes, the taxes that the State of Maryland charges on tobacco products in the state.

And they wanted to find out what are all the types of businesses that sell tobacco products in the State of Maryland because they wanted to know something about the types of products - of businesses that might be impacted by this tax law change. They used the industry by product data. And looking at that - at those data they realized that in the State of Maryland and it's probably true in many other states, the number one industry that sells tobacco products is convenience stores.

And not only is it the number one industry but the share of the total sales of convenience stores, tobacco products is one of the largest percentages of their total sales. So not only do a lot of these businesses sell tobacco products, but the amount that they sell makes up a large portion of their revenue of their business.

When you think about the typical convenience store these are primarily small businesses. And the state decided that it would - this tax law change could potentially impact these guys more than other types of businesses and in the end they decided to not make the tax law change because again they knew something about the types of businesses that were likely to be most impacted by increasing the taxes on those tobacco products.

Now when we present these data we always publish quality measures along with the data. These include variances but they also include imputation rates. And we actually see that in just a moment.

Now this is a sheet that I created that I think you all could probably print off and just sort of save as a cheat sheet for the Economic Census. When you're going into our data.census.gov platform and we're going to do that in just a moment, and you want to look at the different products, these NAPCS-based products by sector, the first digit of the NAPCS-based product code identifies what sector that product is most closely associated with.

So all the ten digit NAPCS Product Codes that begin with the number 1 are primarily associated with the mining sector. All those that begin with the number 5 which we'll see in just a moment are primarily associated with the retail trade sector. It's a nice simple way to jump right down to those products that you most care about. And we'll actually see that when we actually get into data.census.gov.

Now in terms of the geography levels that are being shown for these NAPCS-based products in the 2017 Economic Census we are showing national and state level data for the retail trade sector, for educational services, the healthcare and social assistance sector, for arts, entertainment and recreation, for the accommodation and food services sector and finally for NAICS 81 which is the other services sector.

All the other sectors that are not those ones I just listed will only have data at the national level.

Now I do want to point out to you that there are a couple of sectors that we used to have state level data for that we will not now have state level data for

under the new NAPCS Classification System. Those include the wholesale trade sector, the information sector, professional scientific and technical services, management of companies and enterprises, and finally the administrative and support and waste management and remediation services sector, a real mouthful. Those sectors we had state level data available by product line in the 2012 Economic Census. Those sectors will only produce national level statistics. So it's a little bit of a bummer that we lost that data.

Again the broad lines that we talked about are being shown for all the two through six digit NAICS Codes and even some selected seven and eight digit codes but those detail lines are primarily going to be shown for most six digit NAICS and NAPCS Codes.

Finally, we are not showing the type of operation breakout that's typically shown for the wholesale trade sector. All we are showing is our type of operation equals zero zero, which is the total.

And then finally, as you all probably know from looking at the 2012 Economic Census product line data we have traditionally only shown quantities. So not only dollar values but actual quantities, pounds, tons, gallons, whatever, only were shown for the mining and for the manufacturing sector. That still is true for the 2017 product data. We are only showing those quantities for the - for those two sectors. The quantity column will appear for every sector, for every row but there only will ever be data in that column for mining and for manufacturing.

Okay. So what do those footwear data look like now moving forward into 2017?

This is a breakout that shows what the footwear manufacturing product lines are. As you can see those codes beginning with 2 are manufacturing codes. And you can see we have a breakout of the manufacturing of rubber and plastics footwear, manufacturing of men's footwear, women's footwear. The infant's footwear actually is further breaking out into rubber and plastics versus other and then there's additional breakout.

Below there you can see the breakouts for the wholesale trade sector. We'll see that when we actually see that when we get into the demo. Retail, these are the product lines that are being shown. These NAPCS-based products that are being shown for the retail sector, specifically for shoe stores and then these are the corresponding NAPCS-based products for that footwear repair industry that we were looking at before.

So you're now saying how do I get to all this great data in the data.census.gov application?

I have included screenshots of what we're going to do now live so you do actually have something to refer back to later.

But I am going to jump out actually live out to data.census.gov and actually do a live demo for you of how to access those data in the data.census.gov platform.

So the first use case that we're going to talk about was that shoe store use case. I want to understand, what are the products that we published in 2017 for shoe stores?

So I'm going to go to the advanced search option in data.census.gov. That is the typical way that I usually send users to the data. I'll choose codes. And

I'm going to first start off and choose NAICS Codes because I want to specifically look at data for shoe stores which is a retail business.

So I'm going to choose retail trade. I'm going to scroll down to clothing and clothing accessory stores, 448. I'm then going to choose 4482 shoe stores and finally, I am going to choose 4482.

You will notice that there is a 44821 and there's actually a 448210. They're all the same thing. It doesn't matter whether I chose a four, five or six digit NAICS Codes. In this case I'm going to choose 4482.

Now the next thing I'm now going to do and really the first tip for you all is I'm going to go into surveys. And I'm actually going to choose from this list the Economic Census from this particular list because I want to limit the results that are shown back to me just those files that are available through the Economic Census.

Now I want to give you a tip here. You will notice that there's an option here that says "ECN Economic Census". And if I scroll down even further, I'm then going to come to a section that says "ECN Economic Census of the United States, Economic Census US lines" data.

Do not choose this one here. If you choose this checkbox all you're going to see is the 2012 Economic Census product lines data. What I want to choose from this list is the first one, fortunately the first one that appears, "ECN Economic Census".

And then the last thing I'm now going to do and this is a very important step that I'm now going to do is I'm now going to go to the NAPCS Collection. And I'm going to click on all NAPCS Collection Codes. This step is

necessary because if you skip this step and you only choose shoe stores and Economic Census, when you then open the NAPCS data product you're only going to see a single product line, just the total. You're not going to see the full NAPCS breakout.

So now we've made that selection. I'm going to now click on Search. And we can see that here's a table that we're interested in, industry by products for the United States, US and states. I'm going to go ahead and choose that table.

And when the data file now opens we're now going to be able to see all of the detailed NAPCS-based products that we published in the 2017 Economic Census for shoe stores. You can see there's a lot of breakouts over here that is available. This very first line is the total. So for shoe stores, shoe stores right here, there's 24,844 shoe stores in the United States.

And if I then I scrolled over I can see that their total sales is about $36 billion, $32 billion of that total amount of sales, that $32 billion, is for retail sales of footwear and footwear products.

So you can see when we were looking at that before where the - for shoe stores the vast majority of their sales comes from the sale of footwear.

But remember how I mentioned that now we are able to look at not only retail products being sold by a retail industry, in this case shoe stores, but this new NAPCS System now lets me go in and actually businesses can report other products, other NAPCS-based products outside of retail trade that may be all supplies that they sell.

And you can see the very first product here on the list is a product code that begins with 4. That's a wholesale product.

So not only do retail shoe stores retail shoes but they also provide wholesale sales of footwear.

Now you can see the number of establishments is suppressed. So it's a very, very small number probably or where we had to suppress the data. And you'll see there are a few cases where we've had to suppress the information here to protect the privacy of businesses and for data quality concerns.

But the sheer fact that we actually have products outside of the retail trade sector is really important.

And then over here, here's a number of codes that begin with 7. These are services sector. These are rental and maintenance, repair and alterations, etcetera. So you can see there are 58 shoe stores in United States that provided this particular service.

So again this new classification system and the new consolidated way to merge that data across different sectors makes it much more comprehensive and much better to get a complete picture of the total products and services provided by businesses.

So that was the first way that I wanted to show you to get into these data. The second scenario I now want to talk about is what if I care about a particular product and I want to see what are all the industries that sell that particular product.

So I'm going to go back to my advanced search. And this time I'm going to start off with NAPCS Collection Code. And I want to go in and I want to pick a retail code.

So I'm going to scroll down over here. I'm going to see retail products. Those are the ones beginning with 5. I'm going to choose that. And I'm going to go through this list. And I'm going to find the retail product code 5000475000. That is the retail product line for shoes.

So I'm going to scroll down over here. And here is my - oh, we're not quite there yet, 5000, oh, I may have gone too far, 50475. Oh, I didn't go there. Here we are; retail sales of footwear and footwear accessories. Now you notice there isn't the little checkbox. That means that this particular broad line ending with zero has detail lines within it. So if I choose that one I can either choose the broad line or I can choose each of the one or more, all of the detail lines.

So here's a tip. If you wanted to look at all the industries that sell or provide a certain product, remember I said that those cross-sector products are only shared or only shown for broad line. Detail lines are not going to give me the full breakout that I would see looking at the broad line.

So I'm going to start off with the broad line. And I'm going to do that. And now we said okay, I had made a selection for that particular product.

The next tip I want to tell you is you now need to go to industry codes. And now I need to choose all available NAICS. It's a really important second step. And a lot of users that I talk to have forgotten to do that second step. Because that second step then let's me see all of the industries that sell that particular retail product, footwear not just the total. If I did not check off all available NAICS all I would be seeing is the total.

When I now click on Search, I can now go ahead and look at this table product by industry. That's the one that I'm interested in. And when I now open that particular table I can now see all of the detailed six digit NAICS codes that sell footwear. That have retail sales of footwear.

So you can see that boat dealers, eight boat dealers in the United Sales had sales of - retail sales of footwear and footwear accessories. So this is the complete list of every industry, retail industry as well as nonretail industries. You notice right there at the very top we had a wholesale industry. This is footwear merchant wholesalers also had - sell - retail sales of footwear.

These are all my retail industries. And if I scroll down even further I get down to some - even some services industries. So sports and recreational instruction, this particular industry over here had three businesses sold - had retail sales of footwear so this is allowing me to see all those details.

Now one little tip I want to show you is if I now click on the industry by product breakout, this is going to bring up a table of the two, three, four, five and six digit NAICS Codes.

And it's interesting to see within a particular sector, what is the distribution of the sales of - retail sales by wholesalers, by retailers. So it's an interesting way to kind of come at that type of detail.

And then finally, down here is the NAPCS-based data for the Economic Census of island areas. We did publish for 2017 NAPCS-based data for American Samoa, Commonwealth of the Northern Mariana Islands, Guam, Puerto Rico and US Virgin Islands. And those data are here as well.

So it's a nice way, the new data.census.gov platform makes it much easier for users to now look at these product lines across multiple industries and across multiple products.

In my example I went in and I chose a single four digit NAICS Code, shoe stores. But I could have easily have gone in and looked at all four of those industries that we were talking about at the start of this presentation. Shoe manufacturers, shoe wholesalers, show retailers and shoe repair. And I could've selected all four of those NAICS Codes and viewed all of the product lines for each of those four industries all at one time. I wouldn't have to go to four separate data sets like I used to have to do in the 2012 Economic Census.

So hopefully you've seen that accessing these data while it's different than how it was, it makes accessing that information much, much easier.

Let me jump back out to my PowerPoint file. There we go. And I want to - so here was the screenshot that I showed you all of how to get to those different data files.

One thing I do want to mention to you all is that we actually have product line data available in the Annual Survey of Manufacturers. So you'll notice that if we had not chosen Economic Census from that initial menu we would've also seen the data from the Annual Survey of Manufacturers that were produced that product line data. That's also going to be in there as well and we could go in and actually choose that data.

So in summary, just to kind of close our presentation out for today, the Economic Census provides an amazing wealth of business data. Yes, it is not the most-timely thing that we do. But the level of detail and how

comprehensive the information is is really very valuable. The data are still being released. As I said these NAPCS-based products were just released last week.

But more data are coming. We have those size-based data coming in - coming next week. And then those Miscellaneous Statistics Reports after there.

In the webinar that I did today I primarily focused on the national level data that is available on the NAPCS basis.

But I would encourage you all to drill down in a sort of a smart sort of a way to the more detailed levels that are available by sate. I mentioned to you earlier that there are about six or seven sectors that we are publishing data at the state level. And I would encourage you all to check that out. You do see some really interesting patterns where certain states, businesses in a certain industry in a certain state, their products that they mix, that they sell look quite different than that same business in another state.

While the whole classification system here has changed quite a bit, the data themselves are really quite similar. And this classification change and the platform change, data.gov, are going to make it much easier to access those data across sectors. And you're going to be able to go in and actually get that data and have businesses being able to report data that they never had the opportunity to report in the past.

We do very much encourage you all to learn how to use the new data.census.gov platform. It's not quite new anymore. But we definitely want you to be using it. And we want you to send us our feedback. Send us your feedback, excuse me. What do you think of this particular platform? And we'd like you also to help promote it with your colleagues.

I mentioned it at the very beginning of the presentation. But all of these materials that we talked about today, the PowerPoint files, all of the data sets, (all of the) charts and graphs that I created just to kind of illustrate what data were available in the past and now what's available now will all be posted to our Census Academy Web site. Again, I've included the link here in the bottom left hand corner of the slide. It's the site where you went to, to learn about, to click on the link to actually launch this webinar in the first place.

So all of the materials will be posted in the coming days so just kind of check back to see when it's posted there.

So with that we are done. Here is my contact information, my email address and phone number. I would encourage you all to check out the NAPCS Web site and we have provided that link here too. And if you have questions about understanding NAPCS, I've included the link there too.

So Greg, let's see if there are any questions that came in via chat and then we'll take some questions over the phone.

Gregory Pewett: Okay. I know that you picked a few up in the presentation. And our panelists have been answering some of them as well. Let me see what I can find here. There was one that I'm trying to find about possibly a bridge between NAICS and NAPCS. I'm not sure if you had covered that Andy in the…

Andrew Hait: Right.

Gregory Pewett: …presentation.

Andrew Hait: Right. So I guess what I'm going to say is this. There is bridge information. There's a comparability information that relates the 2017 NAPCS-based product codes (inaudible) the 2012 legacy-based product so (inaudible) because you are comparing product to product and that will allow you to understand how did the product that we collected in 2012   how do they relate to the products that we are now collecting and publishing in 2017. So there is definitely capability information available for theirs.

When I think about the linkages between NAICS and NAPCS what I think (the attendee) is probably more asking is understanding what are the NAPCS codes associated with each NAICS code.

And essentially that linkage between NAICS and NAPCS what are the products and services provided and sold by businesses in each NAICS code, that essentially is a data set. That's the entire data file. And that data file represents what that mixture of products for businesses were like for the 2017 year. How that mixture of products will change moving forward, go to 2022 for example, we may see that certain products that were not as common in 2017 for businesses in a certain industry maybe become more common.

Certainly we all know during the pandemic that restaurants that never provided drive through or carry out service were in a whole new different type of a place in businesses that always provided those types of services. Those restaurant sets that had before the pandemic provided carry out service or drive through service were able to weather the pandemic potentially better because they were already prepared to dealing with people coming in and taking food to-go.

That breakout of restaurant sales by how the sale is made whether it's carry-out, table service, sit down, drive through whatever - that product, that

breakout has historically been published as a product line break out for the restaurant industry.

So again it will be interesting to see how that mixture of products has changed when we get to the 2022 Economic Census. Will those restaurants that had to start providing carry-out and drive-through service, will they continue when the pandemic is finally over. Or will they say I want to go back to running our restaurant the way that we did all along?

So great question. Hopefully that answers it. Any other questions Greg or do you want us to go to over to the phone?

Gregory Pewett: Maybe over to the phone to see if anyone's been waiting on that.

Andrew Hait: Okay. Operator, we want to see if anybody has any questions over the phone, that would be great.

Coordinator: Thank you. We will now begin the question-and-answer session. If you would like to ask a question please press star 1, unmute your phone and record your name clearly when prompted. Your name is required so we can introduce your question. If you need to cancel your question for any reason you may dial star 2 to cancel your question. Again, to ask a question, please dial star 1. It will take just a moment for those to queue.

Andrew Hait: Great. Thank you.

Coordinator: Again as a reminder if you would like to ask a question over the phone please dial star 1. All right. Our first question today, go ahead, your line is open.

(Caller 1):   Yes. Hi, I would be interested in seeing an example maybe not walk through the example like you did with the shoes but you indicated services were also categorized into this platform. Can you give an example of what sort of services and in particular I'm especially interested in the nonprofit slash charitable sector?

Andrew Hait: Okay. So as you can see on the slide, one of the industries that I had talked about is like a footwear sort of related thing was NAICS code 811420 which is footwear and leather goods repair. So that is a services industry, an industry that provides repair services for folks who want to come in and get the soles of their shoes repaired.

The same way as I went into the data.census.gov platform and selected shoe stores, I could have just in the same way gone in and chosen this particular industry. Now when you talk about nonprofits, we publish data in a number of sectors of the US economy on what we call tax status.

We don't actually provide data for the profit or nonprofit businesses but we do have data on taxable versus tax exempt businesses and you could go in and you could find statistics for an industry that has taxable or tax exempt businesses.

So for example, legal services, that particular industry has data broken out for taxable versus tax exempt. So the legal aid society that provide legal services for folks who can't afford to hire an attorney, that would be a tax exempt legal service business. And we would, you would be able to look at data for legal services and look at the different products and services provided by those businesses.

The product data that is shown from industry to industry varies widely and it really is kind of fascinating comparing the product breakout that are shown in one industry versus other ones.

You know, in the example I was showing you all for shoe manufacturers, then breakout of shoe manufacturers actually had it broken out by the size of the shoe. Size 6 and larger, size 4 this breakout of athletic versus, you know, nonathletic, leather et cetera when you get to retail it's a different breakout.

So that would be, I think you could that same type of search that I ran for shoe stores you could run for any of those types of businesses. That make sense?

(Caller 1):   Sure. I will have to dig into the data and see but yes.

Andrew Hait: Okay. Again if you have any specific questions that you would like me to walk through with you, I did include my email address and phone number here at the end of the presentation. Please feel free to send me a note and we can contact live and we can do it together. Any other questions?

Gregory Pewett: Nothing on the chat Andy. Unless you want to take a last scan of that.

Andrew Hait: So I did see when I quickly looked at the chat, I did see someone asked questions about cost data and expenses data as opposed to the revenue and receipt data.

The data on expenditure, on cost of materials, on other costs of goods sold, you know, things along those lines, are not published as part of the NAPCS based data. But we do publish data on tooling expenses for most sectors of the US economy and we also have detailed expenses data available for mining and for the manufacturing sector.

So a user would have to look at a particular NAICS code and look at the total revenue data and the total expenses data and then be able to look at the products of that same industry to see how those products align with their expenses. But the expenses data are not broken out by the NAPCS code.

So I did see that in one question that came in. Operator, did you have another question?

Coordinator: We do. Our next question.

(Caller 2): Can you hear me?

Andrew Hait: Yes. I can.

(Caller 2): Yes, I was very impressed that one of the earlier questions was talking about COVID. So this is really very exciting information even though as you indicated it's not the most up to date information you have.

So your example about tobacco of course was a policy related kind of example and I think something like that and something like the extraction industries with coal and natural gas, can we find out anything about what goes past those products once they are mined or extracted into various product lines?

This is going to be I think very important for regional geographies where their flexibility is important and meeting the needs of changing times. I will just stop there because we are going to have a chance to talk tomorrow but of course various parts of the country are going to be under various strains with COVID for example.

Andrew Hait: Right. So thanks for the question. So obviously when you think about the product data that is available across each sector of the economy, those product lines - the NAPCS based products are tailored to a specific industry. But you could match up for those products across industries to see sort of the chain of those products.

So just to stick with your example, a mining facility let's say a quarry, mines rock and the product lines, the NAPCS based products of that mining of that quarry would include the bulk stone that they mine at that quarry.

That stone is then sent to a manufacturer and that manufacturer turns that stone - that bulk, that large block of stone, turns that large block of stone into smaller things, into smaller items. Let's say it turns it into tombstones. Just not a very happy thought but turns it into something like or maybe let's say building stones to build a building.

So the product line data for that manufacturing business would then for that company that takes those bulk stones and turns it into smaller things like headstones that would then have that product data.

Now that stone, the output of that manufacturing business then goes to a wholesaler and that wholesaler then sells that stone to a retail business that actually sells that stone to the customer, to the funeral home or the funeral director or whatever. And you can track - you could track if you will that stone from when it was first mined and the NAICS based product data for the mining sector - you could track that all the way down to where it's then sold on the retail side.

And some of those products you are going to probably have an easier time of doing that type of a mapping. Other ones are a little bit more challenging. But it definitely helps us understand sort of the supply chain here in the US. So yes, great question.

(Caller 2):   Thank you.

Coordinator: As a reminder if you would like to ask a question over the phone you can dial star 1. Our next question, your line is now open.

(Caller 3):   Hello. I want to make sure you can hear me, I hope you can…

Man: Yes.

(Caller 3):   …the question that was asked a couple ago which is, are you able to tell the kinds of energy inputs that the manufacturer used in producing whatever product they produced. You know, how much of the energy was solar or wind or hydrocarbon.

And the other is for any of the sales or any types of goods are you able to tell how many of the or what percentage or what quantity was manufactured outside of the United States as opposed to manufactured inside the United States? So two questions.

Andrew Hait: Right. So let's first talk about sort of the input - the materials. Just as for the manufacturing sector, we published these NAICS based product data that talks about the products that that business is manufacturing. We also then have a corresponding materials consumed table that breaks out the different materials that that business is consuming to make those products. They are published in a completely separate table from this NAICS based tables data.

But there are corresponding data that allow you to look at the input of a manufacturing operation and then look at the cost of those inputs versus the shipment of that final product.

The inputs themselves, the actual breakout that we published in those materials consumed table varies quite a bit from industry to industry.

So for example, the material input that we ask of the automobile assembly plant would be very different than the material input that we would ask of a bakery that manufacturer tortillas or bread or, you know, some other bakes goods.

And whether or not those material breakouts will include the facility type of the detail, I have to check that. I think the short answer is probably not. We do publish information on - we do collect information on generated and consumed electricity and other fuels but whether that electricity came from a solar, you know, farm or whether it came from other electric power generation facility, that I have to check.

I think the answer is probably no. We wouldn't have it broken out into that level of detail. But I could actually check that.

The other part of your question then - the second part of your question was about sort of knowing whether or not that product, let's pick on a retail business, whether or not that retail business is selling products that were manufactured here in the United States or products that were manufactured outside the United States.

That type of a breakout would not be available in the Economic Census. But you could get some ideas about how much of that is really going on by combining the data that we publish in the Economic Census with the days that we publish in our trade program.

So when you look at the total retail sales of automobile dealers and then you look at the manufacturer shipment of automobile manufacturers in the United States and then you add to those manufacturing shipment numbers, the import data of automobiles, then you could get some picture of what share of the retail dealer of the retail industry for a car sales, car dealers is coming from vehicles that were manufactured here in the United States versus vehicles that were imported.

You'd have to go through some gyrations obviously to kind of do that comparison. But that would probably be the potentially easiest way to actually do that kind of comparison. Yes, I wish we had it more.

It's ironic in my 30-something years working at the Census Bureau, I never have users saying telling me that you publish too much data. They always want more and more details and I'm always happy to tell them every question that you are asking that we should add to our surveys to publish in our data, is another question that we have to ask that business to respond.

And there is always a tug of war between businesses who are being asked to complete these survey forms and businesses who are trying to consume the data that comes from these surveys. So it's always back and forth. We only try to impress upon our (respondent) how important it is for them to respond to our survey because the data that come from that cannot only be useful to others but even to them just to themselves but it is definitely a challenge.

Coordinator: Our next question, your line is now open.

Caller 4:   Hello, (Andrew). I was wondering.

Andrew Hait: Hello.

Caller 4:   Does the Census produce concordance between the NAPCS and HS codes like the concordance that exists between the HS and NAICS codes?

Andrew Hait: So I'm going to refer you to my colleague (Jonathan) who is on the call. I think the answer is, no. There is not a concordance between HS and NAPCS. (Jonathan), do you know if there is?

(Jonathan):   Yes. Hi, can you hear me?

Andrew Hait: Yes.

(Jonathan):   So there currently is a concordance between NAICS and HS and we are working on developing concordance between NAPCS and HS but it's not conceded yet. That's coming soon.

(Caller 4):   Okay. Okay. That's kind of what I was thinking that they hadn't done that yet. I'm wondering is there another way of kind of getting at that kind of in a roundabout kind of way to go HS to NAICS and then NAICS to NAPCS, I don't know, I'm thinking how could we do that.

Andrew Hait: Yes. So it is being worked on though. It's a - is there any sense of when, you know, 2021, 2022, 2023 like is there any sense of putting that out?

(Jonathan):   You know, I don't have like a hard date on when that would be published. It's sort of a difficult process. There is a lot of HS pairs and we actually are doing that equilaterally between Mexico and Canada, some negotiation between the two countries and figuring out where all these products go.

We are probably like three fourths of it done or so, but it's hard to say exactly, you know, what day it will be done.

(Caller 4):   Great. Thank you very much.

Coordinator: We have no further questions in queue at this time.

Andrew Hait: Okay. Very good. So it looks like we may - let's see here. There are a few other questions that I think have come in. I will just touch on a couple of them (since we are) running a little long.

One of our attendees noticed that in the NAPCS table that I was showing you all in data.census.gov there were some cells where the data was replaced with an (S) and some cells where the data was replaced with a D.

An (S) typically refers to a suppression of data due to standards, publication standards - where then data that is hiding under that (S) is statistically is a number that our statistical standards would make us say we don't want to publish that number. We don't feel comfortable with publishing those numbers for a statistical quality standard reason.

The D in the tables specifically refers to withholding of the data due to disclosure. All the statistics that we publish in the Economic Census are subject to Title XIII of the US Code of Requirement.

Title XIII basically says that we can't publish data that would disclose the identity of individual companies, individual businesses. Sometimes as you discovered there are cases where there are so few businesses that are doing that thing, that we had to withhold the data. We actually had to suppress the data with a D because if we had published it, we would have disclosed the identity of the one or two or very small number of businesses that are doing that particular thing.

And that question of suppressions of data S and withholding of data due to disclosure D, also relates a little bit to a few other questions that I have seen in the chat referring to things like electric cars. When are we ever going to have data on electric cars being a subcategory of all the automobile data be published? E-bikes being a subcategory of bicycles.

And the general comment I make is when they talk about producing statistics on emerging industries, emerging products of things that are really growing is the following. First, in order for us to be able to publish data for a particular industry, there has to be enough activity going on in that thing whether that's an industry, whether that's a product to allow us to collect it and publish it. There is no sense trying to collect data if we are just going to withhold the data.

It wouldn't make sense for us to collect data on e-bikes if there were only one electric bike manufacturer here in the United States. We couldn't publish it because there is only one. So first of all there has to be enough of them that we could collect it and publish it.

Second, we also need to make sure not only is there enough of them but that they are not all owned by the same company. You know, this is the company-based rule, a disclosure rule, it's a company based rule. So you might have 30

businesses that make e-bikes but those 30 businesses are all owned by the same one or two companies, we couldn't publish the data. So it has to be collectable and publishable.

And there also has to be a bit of a documented need for the data. I will give you a real-life example.

Under the NAICS classification system we just last Census introduced brand new NAICS codes for solar, geothermal, biomass and wind electric power generation. Many of you who have been in the areas of California where they have these huge wind turbine farms know that some of those turbines have been around for a while. But if they were geographically located only in certain areas we couldn't collect the data and it's now that industry has grown to such a point that it now makes sense for us to actually collect and publish detailed data.

And then finally as (Jonathan) just alluded to when we introduce new breakouts of industry by mix and when we are considering introducing new breakouts by the other classification systems like NAPCS. Those discussions need to happen more than just with the Census Bureau. The Census Bureau is just one of more than a dozen statistical agencies in the US many of who use the NAICS and NAPCS classification systems. It's a negotiation between all of us.

And also in the case of NAICS for example, it's a three country agreement. So the NAICS codes are derived or determined by a committee if you will that has representatives from the US, Canada and Mexico. So it takes us a while sometimes to breakout these emerging industries first because they have to grow with us before we can do it. And secondly there needs to be a demand

for the data and yes we have the ability to actually collect it and then finally the countries have to agree.

In my 33 years of Census I have seen activities come into birth and then die. We used to collect data on pagers at the Census Bureau. We don't collect data on paging anymore or it doesn't have its own NAICS code because that activity has sort of declined.

But, yes, great question about keeping the data fresh.

So I think that looks like all the questions that I have seen. Again if I didn't get to your question that was in the chat again I apologize. Please feel free to contact me at the email address that I have here on the slide or feel free to contact me via that phone number and we can chat about data some more.

So thank you so much for taking time out of your busy day everyone.

Coordinator: That concludes today's conference. Thank you for participating. You may disconnect at this time.

END